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BY MR. N. N. BANERJEI, B.A., M.R.A.C., &c.
Assistant Director of Land Records and Agriculture, Bengal.

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Details of Columns and Doors.

RAM SINGH DEL. MAYO SCHOOL OF ART, LAHORE.

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W. GRIGGS,
HANOVER STREET, PECKHAM,
LONDON, S.E.

The Journal of Indian Art and Industry.

THE COTTON FABRICS OF BENGAL.

By N. N. BANERJEI, B.A., M.R.A.C., F.H.A.S.,
Assistant Director of Land Records and Agriculture, Bengal.

Cotton has for centuries been the staple article of clothing in India, and other countries in the East. Mention is made of the fibre in the Institutes of Manu, and the present vernacular term *kapas* is most probably derived from the *karpasi* mentioned in the Institutes of Manu, as the fibre from which the Brahmanical thread was prepared. At the time of Manu, as would appear from his writings, not only was spinning and weaving well known, but also starching and other operations now in vogue in cloth manufacture. Even at an earlier period than that of Manu was the art of weaving carried to a high state of excellence. The following extract taken from Mr. Romesh Chandra Dutt's "Ancient India" will show that cotton manufacture was known in India from the very earliest ages :—"It would appear from many passages in the Rig Veda that many arts were carried to a high state of excellence; weaving was well known of course, and deft female fingers wove the warp and the woof in ancient times as in modern days. In one curious passage, the *Rishi* laments his ignorance of the mysteries of religious rites by saying, 'I know not the warp, and I know not the woof' of religious rites; and in another place, the weaving and bleaching of sheep's wool is attributed to the god Pushan, who, as we have already seen, is the god of shepherds."

Reference to the fibre by Western writers, says Dr. Watt in his "Dictionary of Economic Products," is perhaps first made by Herodotus. Dr. Watt adds: "In his account of India, he (Herodotus) writes :—'The wild trees of that country bear fleece as their fruit, surpassing those of sheep in beauty and excellence; and the Indians use cloth made from these trees.'" Evidence is not wanting from the writings of other Greek authors, that in all the pageants of Ancient India, highly embroidered cloths formed a noticeable feature of decoration. As well from ancient Indian literature, as from Greek literature, it is evident, as Mr. Dutt states, that "the time-honoured *dhuti* and *chaddar* (which latter served as a *pagri* also) formed the national dress in Ancient India." In support of his statement he adds: "Arrian (who lived in the first century after the birth of Christ) quotes a passage from Nearchus, and says that the Indians *wear an under-garment of cotton which reaches below the knee half way down to the ankles, and also an upper garment, which they throw partly over their shoulders and partly twist in folds round their head.*" The same author (Arrian), who was also a merchant and traveller, is referred to in Dr. Watt's "Dictionary of Economic Products" as being the first to make mention of Indian cotton as an article of commerce in his time. Broach, Masulipatam and Dacca are mentioned as centres of the industry.

Cotton manufacture was thus known in India long before it spread to the West. From India, the industry spread to Persia, Arabia and Egypt, and then gradually into South Europe, where delicate fabrics began to be manufactured about the twelfth century. From South Europe, it gradually spread to England about the seventeenth century. In 1769 Arkwright obtained his patent, and in 1779 Crompton invented the mule. Since then, the English manufacture of cloth for India has made such gigantic strides, that it has all but completely supplanted the Indian industry. Some idea may be had of this invasion of English fabrics into these Provinces, when it is stated that the average of the exports of piece-goods of the last ten years from Calcutta to Bengal amounted to a money value of ₨ 85,817,755. From every district it is reported that, owing to the widespread use of European piece-goods—which are cheaper and finer, though not always more durable—Indian manufactured goods have gradually disappeared. Indigenous cloths are now limited to a few specialities, such as the cloths of Dacca, Fareshdanga and Santipur, which still have their admirers, and to very coarse cloth which is still worn by the poorer classes on account of their strength and durability; but even these are in most cases manufactured from machine-made thread, either European or Indian, which is available in almost every market in these Provinces.

Of the decline of the industry in Dacca, which owes its importance to the manufacture of its cotton fabrics, it is reported thus :—"At one time, Dacca was the great emporium of trade in cotton fabrics in Bengal. It had commercial intercourse with China on the one hand, and with Turkey, Syria, Arabia, Ethiopia, and Persia on the other. A little later on, Dacca sent its muslins and embroidered fabrics to Provence, Italy, Languido, and Spain. When Surat became the principal emporium for the goods of Europe and India, Dacca carried on a considerable traffic with that place. The exportation of cloths to different parts of India was very extensive in former times.

During the reigns of the Moghul Emperors Jahangir, Shah Jahan and Aurangzeb, the manufacture of the famous gossamer-like muslins was in full operation, and the finest muslins were supplied for the imperial wardrobe at Delhi from Dacca. A regular export trade also existed with Pegu and countries to the eastward. Since the time of the Burmese war, this trade declined and was transferred to Calcutta. At the close of the last century, the annual investment made by the East India Company and by private traders for Dacca muslins was estimated at 25 lakhs of rupees; but in the beginning of the present century the industry rapidly began to decline under the competition of cheaper piece-goods from Manchester. By 1813, the value of the private trade had fallen to two lakhs of rupees, and four years later the commercial residency of the Company was abolished, the trade gradually languished, and in 1825 received a severe shock from the introduction of British thread, which has since been used almost to the entire exclusion of country yarn."

The cotton plant is grown on an exceedingly limited scale in these Provinces. A report was published by the Government of Bengal in 1878, from which it would appear that, as far as could be ascertained then, there were 162,000 acres under cotton cultivation in Bengal. In the Returns of Agricultural Statistics of these Provinces for 1895-96, the area under cotton is shown as 189,000 acres; but even this area is very insignificant as compared with the total area under cultivation. The fact is, that the cultivation of cotton has long lost its importance in these Provinces. The Chittagong Hill Tracts and a few districts of Bihar, Chota Nagpur and Orissa are the only places where cotton is grown to any appreciable extent. The Chittagong Hill Tracts is, in fact, the only district which now grows cotton for purposes of export, and this result may be attributed to the extension of *jhum* and plough cultivation in these tracts. The produce of the other districts is consumed locally. In the latest forecasts published by the Agricultural Department of the early and late cotton crops of these Provinces, the out-turn of cleaned cotton was estimated at 3,660 tons only.

From reports recently received by the Agricultural Department from district officers, it would appear that there are two cotton crops in Bengal—viz., the early crop, which is sown during the monsoon rains and harvested during the cold weather, and the late crop, which is usually sown at the close of the rainy season and harvested in the hot weather.

While it is regrettable that there are no means of accurately gauging the amount of cotton grown in these Provinces, it is a matter of still greater regret that very little is known of the many forms of cotton grown. The cultivated cottons of India are now forming the subject of study of Dr. G. Watt, C.I.E., Reporter of Economic Products to the Government of India, and other scientists, but up to the present the greatest confusion seems to prevail with respect to the different forms and species of cotton grown in these Provinces. There is a great similarity in the different local names given to the cottons grown in different districts, and there can be no doubt that all these forms are reducible to only a few varieties. What these varieties are still forms the subject of study of the botanist, but it may be observed that the chief forms to be found in these Provinces are believed to be—*Gossypium herbaceum*, *Gossypium arboreum*, and *Gossypium neglectum*.

The total number of persons dependent on the cotton industries in these Provinces in 1891 amounted to 511,665 males and 580,912 females, making a total of 1,092,577 persons altogether. There is no means of ascertaining what proportion of this total represents the working section of the population, but it is interesting to note that on comparing the above number with the numbers engaged in other industrial occupations it comes to light that the cotton industry, although in a state of decline, gave in 1891 employment to a larger number of persons than any other industrial occupation.

Owing to the want of uniformity and completeness in the reports now received from district officers, it has not been found possible to draw a strict comparison between the state of the cotton industries of 1891 and of those of the present day: but from such information as has been received from district officers, and from enquiries personally made by the writer, it can be stated beyond any doubt that the numbers engaged in the industry are surely decreasing. The following extracts from district reports clearly point to the languishing state of the industry :—

Burdwan.—"There is no cotton industry in the Sadar, Raniganj or Kalna subdivisions of this district. In the Katwa subdivision, the cotton industry is carried on principally by the weaver caste among the Hindus. On account of the wide use of European piece-goods, which are cheaper and finer in quality, the indigenous industry is gradually disappearing. Large numbers of weavers have abandoned their looms and have taken up other pursuits. Indeed, very few families are to be found now who are wholly engaged in weaving alone."

Birbhum.—"In Birbhum, the cotton industry, which was of considerable importance some years ago, is now gradually declining." Bankura.—"About 800 families, or 4000 men, are engaged in weaving purely cotton fabrics in this district." Midnapore.—"The indigenous cotton industries, which were once in a flourishing state, have now decidedly declined and deteriorated, and are gradually becoming extinct." Hooghly.—"The weaving

castes have gradually decreased to about one-third of their number." Howrah.—"The cotton industry in this subdivision (Ulubaria) is carried on to a very small extent. It is gradually dying out." 24-Parganas.—"At present about 284 families of all castes in the Sadar subdivision, and about 530 families in the Basirhat subdivision, are weavers. The total number now carrying on the industry may roughly be taken at about 4,000 in all. The figures show that weavers have been largely driven from their hereditary calling to agriculture."

Nadia.—"In almost all villages in this district, there are a few families of *Tantis* and *Jolahas*. They turn out coarse cloth for the use of cultivators, but their number is gradually decreasing, and the profession is deteriorating on account of English manufactured cloth, which is cheaper." Murshidabad.—"The cotton weaving industry of this district is in a decaying condition." Jessore.—"It is difficult to give the exact number employed in this industry without systematic statistics being taken, as there are no important centres of these industries, but they are followed by individual families scattered throughout the district as village industries, and only a village-to-village inquiry can furnish approximate figures. A very small minority of the total number of *Jogis*, *Tantis* and *Jolahas* still follow this industry as a hereditary profession, and the industry itself is on the decline."

Khulna.—"The weavers are Muhammadan *Jolahas* or Hindu *Tantis* or *Jogis*, and number 19,477 and 13,226 respectively, according to the last census, but only a few actually carry on the profession." Rajshahi.—"Nearly within the period of a single generation, the number of villages in which the industry has ceased to exist is 234. Within this same period, the number of handlooms have dwindled down from 3,340 to 1,013." Dinajpur.—"The total number of male *Tantis* in the several thanas is 583. A vast majority of them, have taken to cultivation, and only about 5 per cent in all live on the earning of their loom." Jalpaiguri.—"The entire number of weavers in this district, according to the last census, was 4,062 out of a total population of 681,352." Darjeeling.—"The number of weavers in the Siliguri subdivision of the Darjeeling district is reported to be 374." Rangpur.—"The indigenous cotton industry in this district is steadily declining." Bogra.—"The number of persons engaged in this industry is estimated at about 800 (including both Hindus and Muhammadans). The population of the *Tanti* caste (Hindus), as ascertained in the last census, was 1,953 (including both sexes). Out of this number not more than 200 are believed at present to be actually engaged in this industry. The number of Muhammadan weavers at present actually engaged in this industry is believed to be about 600. The number of persons who depend entirely on the industry for their support is believed to be very small, being not more than 200 (including both Hindus and Muhammadans)."

Pabna.—"A comparison of the census returns of 1872 and 1892 shows a marked decrease in the numbers of persons engaged in weaving. Many of the Hindus have abandoned their hereditary profession, as they find themselves unable to successfully compete with European piece-goods, which are sold in *hâts* all over the district. Those who are too poor or conservative to start in new trades still carry on weaving, and manufacture coarse cloths and napkins, which find a market among raiyats too indigent to buy finer fabrics." Dacca.—"In the census of 1872, the total number of weavers returned as actually engaged in the trade was 18,000. In the census of 1892, the total number was 31,379. Of this, half the number may be taken as actually following the profession, which agrees with the present estimate of 15,000." Mymensingh.—"At Nagna, Katakhali and Satal, all within the jurisdiction of the Kishorganj Municipality, there are in all about 50 families who are devoted to this industry. The number at Bazitpur is about 40." Faridpur.—"The cotton industry is not carried on on a very extensive scale in this district. In the town proper, there are seven or eight weaver families, who are all Musalmans."

Backergunge.—"The number of persons engaged in the weaving of cotton fabrics cannot be accurately ascertained, as it varies according to the amount of agricultural employment obtainable in the vicinity. Enquiries go to show that there has been a lamentable decrease in the numbers of those regularly carrying on the trade of weaving, concurrently with an increase in the numbers practising the trade as an industry subsidiary and subordinate to agriculture. The weavers themselves have informed me that their numbers are decreasing, and that their trade is less and less profitable." Tippera.—"The class of people who carry on the indigenous manufacture of cotton fabrics are the *Jogis* or *Naths*, and the weavers (*Tantis*). According to the census report of 1892, the former includes a populatien of 69,441, out of a total district population of 1,782,935; but the number comprised in the latter class is not stated, and as only those classes having a numerical strength of 1,000 have been included in the lists furnished in the Census Report, it appears that the number of the weaver class must be less than that figure. The *Jogis* form the principal class who carry on the indigenous manufacture of cotton fabrics."

Chittagong.—"In Chittagong, there is practically no industry in manufactured cottons." Patna.—"It will appear from the reports received that there is not much cotton industry in this district except in the town of Bihar and in the city of Patna. In thanas Sultanganj and Alumganj, in the city of Patna, *durris* (country carpet[illegible] different kinds are manufactured by a class of Muhammadans, and it is said that there are about 200 famili[illegible] such Muhammadan weavers." Gaya.—"It has not been found possible to ascertain correctly what the [illegible]

number of weavers employed in the district is at the present time. The census of 1892 showed 1,875 males and 2042 females belonging to the *Tantwa* caste. In 1881, the figures were 2,478 and 2,573 respectively."

Shahabad.—"There can be no doubt that the number of *Jolaha* weavers is gradually decreasing. The number of *Qualinbafs* actually engaged in the cotton industry is very small. The *Tantwas* are found in small numbers in all the thanas of this district, excepting Mohamia." Saran.—"The number of male weavers of each class was found on enquiry to come to about 45,000, viz. 6,500 *Dhuniyas*, 36,000 *Jolahas*, and 2,500 *Tantwas*, against 60,515 shown in the last Census Report." Champaran.—"The number of cotton weavers, as ascertained at the census of 1892, is 2086 males and 1735 females; total, 3821. It is very doubtful whether all these were actually engaged in the trade at the time the census was taken. Only about 660 families now do the work of weaving, and the number of persons who are actually engaged in the trade is about 1465." Muzaffarpur.—"The total number of male *Jolahas*, including *Tantwas* and *Tantis*, as ascertained in the census of 1892, was 59,020. About 25 per cent, or in round figures 14,700 men, still ply their business as weavers."

Darbhanga.—"It is difficult to obtain figures showing the numbers engaged on the cotton industries of this district (viz., the manufacture of *Motia* and *Kokti* cloths), but it is quite certain that in the case of the *Motia* cloth the industry is flourishing in this district; though in that of the *Kokti* cloth, it is in a languid state for want of patronage." Monghyr.—"The number of weavers of cotton fabrics in this district, according to the last census, appears to have been 14,798, out of a total population of 2,036,021. Excluding the females, who take very little part in the weaving, the number of men actually employed in this industry was 6,998. There was no means of ascertaining their present number with any approximation to accuracy, but the general opinion is that their number is gradually decreasing."

Bhagalpur.—"There is no reason to believe that the numbers employed in making cotton fabrics in this district are suffering from a diminution to any appreciable extent, as compared with the census of 1892." Purnea.—"Roughly speaking, the total number of persons included in these three classes (*i.e.*, *Jolahas*, *Tantis*, and *Polias*) does not exceed 1,200." Malda.—"The weaving of cotton fabrics is not an important industry in the Malda district. A few local Muhammadan weavers or *Momins* of Kaliachak, Ratna, and Old Malda thanas employ themselves in weaving cotton stuffs, but the industry is fast declining in competition with English piece-goods." Sonthal Parganas.—"The *Jolahas* considerably outnumber the *Tantis*, who mostly have taken to agriculture and petty trade or shop-keeping as more profitable occupations." Cuttack.—"The census returns for 1892 give the number of weavers as 59,363 out of a total population of 1,937,671."

Balasore.—"The number of cotton-weavers in this district as per census of 1892 is 56,767 out of a population of 994,625." Puri.—"The weaver classes consist of about 3,900 families, and represent a population of 19,500." Angul and Khondmals.—"About 500 *Pâns* manufacture different kinds of cloths in the Khondmals. In Angul, the number of *Tantis* is not more than 2 per cent, or about 2,000, of the entire population. The next class of weavers in Angul is the *Pân* class. Their number as weavers may be put down roughly as 5,000." Hazaribagh.—"About one-third of the classes in this district who carry on cultivation grow the cotton plant. Many women (whose numbers cannot be correctly estimated) earn their living by twisting cotton wicks into thread. The *Jolahas* are weavers by profession, and it is their caste occupation, but large numbers of them have now taken to other employment."

Palamau.—"The total number of *Jolahas* in this district, according to the last census, is 1,246 males and 1,227 females, or it may roughly be stated that there are 1,250 families of *Jolahas* with weaving as their calling. The last census discloses only about 550 families of Hindu *Tantwas*, but it is presumed that not even half of this number follow the profession of the cotton industry; they are all, or nearly all, agriculturists." Manbhum.—"No independent enquiry could be made to ascertain the number of weavers in the district. According to the figures of the last census, the *Tantis* number 12,911 and the *Jolahas* 3,621." Singhbhum.—"At the time of the last census, there were 25,174 *Tantis* and 313 *Jogis*, of whom 3,269 carried on their caste profession, and the rest have taken to agriculture or service, and some were day-labourers."

The persons actually employed in weaving are regarded as being of a more or less inferior social position, but the status of the industry cannot absolutely be said to be low, otherwise some of the higher castes would not have followed the occupation of weaving. Compared with other castes, however, the Hindu weavers command little social respect, and are even looked down upon by those of their brethren of the same caste who have taken to other callings such as those of money-lending, shop-keeping, &c.

Since the introduction of European machine-made textiles into this country, it may be said that the indigenous ...stry has practically died out and the professional position of the weavers as a class has become very unsatis-...ry. In the palmy days of the industry, all were in more or less good circumstances. Most of them built ...a houses and lived in ease and comfort, some not condescending to work more than five or six months in the

year and enjoying themselves on the sale proceeds of their goods during the rest of the year. Many of the weaver caste were specially appointed by Rajas and others as their weavers, and they were then never in lack of money. Some (*e.g.* in the Hill States of Orissa) supplied cloths to the chiefs of these States and their families and enjoyed *jagirs* for the same, and in some of the Gurjats they enjoy such *jagirs* even to the present day for weaving services rendered to a chief. The great majority of weavers have, however, given up their hereditary occupation and now have taken to cultivation and other remunerative pursuits. Many of these have amassed wealth as money-lenders and shop-keepers and have become rich enough to be reckoned as big landholders and zamindars; others have educated themselves and hold respectable posts under Government. Those who still work at the loom are in more or less indigent circumstances, and are not able to depend upon weaving as the sole means of their subsistence. In some districts there are a few well-to-do weavers, who have several looms and have hired men working under them, but such cases are rare. As a rule, a weaver possesses but one loom and earns no more than the ordinary daily wages of a labourer by his profession. From the many enquiries made personally, and from the information gathered from district reports, the writer concludes that 3 to 4 annas per day or ₨ 7 per month represent the earnings of an ordinary weaver. Some may earn as much as 8 annas per day, but such cases are rare.

Chief Centres of the Industry.—Notwithstanding the undoubted fact, that the indigenous cotton industry of these Provinces is in a moribund condition, cotton fabrics are still woven all over Bengal, Bihar, Chota Nagpur and Orissa. Cotton-weaving, in fact, is carried on more or less in every district. The primitive method of weaving is still maintained, and it is generally in those places where communication with Calcutta is difficult, as in parts of Orissa and Chota Nagpur and the hilly tracts of Chittagong and Tippera, that country thread is used, and in these places cotton-spinning is carried on only as a domestic industry. Isolated cases occur, where the old conservatism still exists, and where country thread is much preferred to foreign thread. Notably is this the case among the Maghs of Chittagong. The yellow robes of their priests are all spun, dyed and woven in their own monasteries. Wherever important centres of the weaving industry exist, it will be found that the yarn or twist is generally imported, and the fabrics are mostly manufactured from this imported machine-made twist.

The districts in which the industry is still comparatively important (albeit that imported twist is almost universally used), or where specialities in cotton fabrics are still produced, are Bankura, Hooghly (Fareshdanga and Serampur), Nadia (Santipur), Khulna (Satkhira), Pabna, Dacca, Tippera, Patna, Saran, and Darbhanga. Although the muslin trade has been all but ruined, Dacca still has a reputation for its muslin fabrics. Mr. E. W. Collin, I.C.S., in his report on the Arts and Industries of Bengal, which was published in 1890, states that "there are 500 families in Dacca who make ordinary muslin of English thread, and there are yet two or three families who make the famous Dacca muslin, which is woven from country thread." Santipur, in the Nadia district, also still maintains its reputation for its cloths with coloured borders. From Nadia, it is reported that the outturn of cotton cloth at Santipur is about 3½ lakhs of rupees, of which only ₨ 25,000 worth are sold in the town, the rest being exported to other districts. Fareshdanga in the French settlement of Chandernagore has also its own cloth speciality. Uniformity of texture, fineness and durability have won a reputation for Fareshdanga cloths.

Pabna is another centre of the cotton industry in Bengal. In Mr. Collin's report it is stated that "at Chotadhul and Dogachi in Pabna are numbers of Hindu weavers who make fine cotton fabrics. The trade has not suffered much from European competition. The cloths are sometimes coloured. The value of the cotton is estimated at 2½ lakhs." These fabrics are also made in the town of Pabna and in the villages of Salanga, Radhanagor, and Tantiband. The *Jolahas* of Pabna and of the villages of Sadallapur, Nischindapur, Aminpur and Shibpur manufacture these articles too, and also produce fine patterns of cloths known as Pabnapar cloths. The threads used in preparing the fabrics are exclusively of European or Bombay manufacture. Serampore is another great centre of the weaving industry in Bengal. No mention is made of it in the report received from Hooghly, but Mr. Collin states in his report that "in the Serampore subdivision, there are said to be 6,000 families engaged in cotton-weaving, with an outturn estimated at over nine lakhs. They are located in Serampore, Harrypal, and Khanyan." Further, he remarks that "the Serampore weavers use an improved handloom, and it is probable that they owe the vitality of their trade to that fact. They, however, weave only a common kind of cloth." Besides weaving common cotton cloth, they weave silk, which finds a very good market in Bombay.

In the Satkhira subdivision of Khulna, the cotton industry was once in a flourishing condition under the patronage of zamindars, but it has since declined. The Satkhira *chadars, dhutis, saris*, and *charkhanas* are, however, still well known in the market. Carpet-weaving is to be still found in Rangpur, and mixed cotton and silk cloths are prepared in Birbhum and Bankura in Bengal, and Bhagalpur in Bihar. Moynamoti in Comilla may also be mentioned, where specialities in cotton fabrics are made of hill cotton and woven by the Tippe[illegible] I[illegible] the Hill Tracts of Chittagong, the hillmen take great trouble in weaving coloured cloths; and among the [illegible]

in Chittagong, the weaving of brightly coloured cloths (after the Burman taste) forms quite a speciality of the district, and offers marked contrast to the ordinary coarse white cloths woven all over these Provinces. At the village of Bazidpur in Mymensingh are woven what are especially known as Bazidpur *golabatan saris*.

In the Province of Bihar, Patna, Gaya, Saran and Darbhanga would appear to be the most important centres of industry at the present day. They are specially noted for a kind of rough cotton, known as *motia*, which is generally worn by the poorer class of people during the cold season. Besides *motia*, a brown coarse cloth, known as *kokti*, is also prepared. *Satrangis* and floor cloths are largely manufactured in Bihar. Dusters, towels, and table-cloths are made at Dinapore, chiefly for the use of Europeans. Muslin is made at Patna. Gulnagar, a village in Cuttack, enjoys the reputation of being the chief centre of the cotton industry in Orissa. The Gulnagar muslins are much prized by the wealthier natives of the district. Besides meeting the local demands, Gulnagar cloth finds its way into the shops in the town of Cuttack, where it fetches a much higher value than the ordinary country cloth. About ₨ 30,000 worth of this cloth is reported to have been manufactured during one year (1890), the prices varying from 8 annas to ₨ 20 per piece of three to eight yards. In Chota Nâgpur, no fine specimens of fabrics are manufactured, but strong *dosuti* cloth is woven in different parts of the Division.

Cotton Fabrics: their Prices.—The most important of Bengal cotton fabrics from an artistic point of view is the muslin. This name is applied to thin cotton cloth, and although it is said to be derived from the word *Moussul* (a town in Turkish Asia, where it is said to have been first manufactured), there appears to be a great deal of evidence to show that the muslin made in India is probably of equal antiquity. The best muslins, as is so well known, are those made in Dacca. Mr. Trailakhya Nath Mukerjee, in his "Art Manufactures of India," states that "the value of the Dacca muslins consists in their fineness, to attain which an incredible amount of patience, perseverance, and skill were formerly displayed both by the spinners and weavers. One way of testing their fineness was to pass a whole piece of muslin, twenty yards long by one yard wide, through the small aperture of an ordinary-sized finger ring. Another test was the compass within which a piece could be squeezed. Tavernier relates of a Persian Ambassador in Bengal having on his return home presented to his monarch a piece of Dacca muslin turban, thirty yards long, placed within a highly ornamented cocoanut shell not larger than an ostrich egg. No one who ever wrote about Dacca muslin forgot to mention this incident as an incontrovertible proof of the delicate texture of the fabric; but an ostrich egg is not a small thing, and there does not appear to be anything so very astonishing in the fact of thirty yards of fine muslin going within the space inside its shell. The best test, however, was the weight of the cloth proportioned to its size and number of the threads. It is said that two hundred years ago a piece of muslin, fifteen yards long by one yard wide, could be manufactured so fine as to weigh only 900 grains; its price was £40. Dr. Taylor, writing in 1840, stated that in his time a piece of cloth of the same dimensions and texture could not be made finer than what would weigh 1,600 grains. The price of such a piece of muslin would be about £10. It is generally believed that the artists of the present time have lost that manipulative skill and the delicate touch of hand by the aid of which such gossamer web was formerly produced. Three years ago, I was informed by one of the manufacturers of Dacca muslin that the generation of women who spun the yarn of which the finest fabrics were made has all passed away, except two very aged beings, who, with their defective eyesight, earned but a precarious livelihood at Manikganj, a town near Dacca. It has also been stated that the long-stapled cotton, which alone could produce the thread of which Dacca muslins were made, has also disappeared. It may be all true: but there is no doubt that if a demand arises the finest fabric ever made at Dacca can still be made there." There is no doubt that it is very difficult now to procure the finest Dacca muslins, but there are still a few families at Nawabpur who can produce these exquisite fabrics, if specially ordered to do so.

One of the finest qualities of plain Dacca muslin is that known as *sangati*, meaning "for presentation." *Sharbati* ("sweet as sherbet") is the name applied to another muslin of the finest quality. Other slightly inferior qualities are known as *abrawan* ("running water") and *shabnam* ("evening dew"). *Abkawan* is said to be so fine that, if it were thrown into a stream, it would become invisible in the running water; and so also the *shabnam* was so fine that, if laid on wet grass at night, in the morning it was not visible till the dew disappeared after sunrise. Muslins are now made in Bihar also and at Jahanabad near Patna in imitation of Dacca muslin, and are used for handkerchiefs, scarfs, *pagris* and *murettas*. Gulnagar in Cuttack is also noted for its good muslins.

A speciality of embroidered muslin in Dacca is known as *kasida*. It includes all kinds of embroidered cloths, such as scarfs, handkerchiefs and turbans. The following notice of this cloth appears in the report received from Dacca:—"Although the demand for fine muslins has almost died away, there is still a tolerably brisk business in this kind of cloth. These cloths are embroidered with raw silk, and are exported by Arab [illegible]nts to Persia, Egypt and Turkey, where they are chiefly used as turbans. In Dr. Taylor's time, about [illegible] pieces of this cloth were annually worked in Dacca. Even at the present day, the largest quantity of

cotton fabrics annually exported from Dacca is of the *kasida* kind. At one time, this cloth was in great demand for use as turbans or *pagris* by the army of the Sultan of Turkey. Since the introduction of *fez* caps, which have replaced these *pagris*, the export to Turkey has greatly declined. There are fifty or sixty sorts of *kasida* cloth. The prices range from Rs 8 to Rs 50 according to quality. The difference between *kasida* and *chikan* is that in the former the embroidery is in floss silk, while in the latter it is entirely in cotton."

Figured muslin goes by the name of *jamdani* in Dacca. Babu Charu Chandra Mitra, Deputy Collector, reports thus on it: "The peculiarity of the ordinary *jamdani* is that it is hand-embroidered in the loom. The weaving is begun as in the case of a piece of ordinary cloth, and a pattern of the embroidery, drawn on paper, is pinned beneath. As the weaving goes on, the workman continually raises the paper pattern to ascertain if his woof has approached closely to where any flower or other figure has to be embroidered, and when the exact place is reached, he takes his needle (a bamboo splinter), and as each woof thread passes through the pattern, he sews down the intersected portion of it, and so continues until it is completed. When the embroidered pattern is continuous and regular, as in the usual *sari* border, the weaver, if a skilful workman, usually dispenses with the aid of a paper pattern." An imitation of this *jamdani* muslin is produced in Bihar. It is reported to have been first manufactured about thirty years ago. The thread used for the finest Dacca muslins are made at Dhamrai, a place about twenty miles north of the city of Dacca. It used to be spun by women, by the fingers only, direct from the finest cotton. Since the introduction of machine-made thread, this industry has all but died out.

The other cloths of thin texture that deserve special notice are: Fareshdanga *kapars* of Chandernagore.—These chiefly consist of *dhutis*, *saris* and *uranis*. Most of them are made of English thread. The finest cost about Rs.16 per pair. Most of the Fareshdanga cloths are made by the hand-loom, but machine-made looms after the Serampore loom pattern are also used. The cloths manufactured from the latter are not so fine as those made with the hand. Santipur cloths.—These are made in Nadia; they are specially admired for their thin texture and for their embroidered and flowered work. Fine cloths are also made in Chandrakona and Kalna in Midnapore, in Baranagore and Simla in Calcutta, in Pabna and other places, but beyond their thin texture there is nothing special to report about them. Fine *saris*, *dhutis*, &c., are also largely made in Dacca. The prices of these vary a great deal, costing from Rs.10 to Rs.50 per pair in the Calcutta market. *Mausari kapar.*—This is a thin but roughly made fabric manufactured in different parts of Bengal, and used for mosquito curtains, taking the place of the familiar English net. It is rather extensively used both by the middle and lower classes. It is generally made in check. The length of the curtain varies from 18 cubits to 36 cubits, and the breadth from 1¼ cubits to 2 cubits. The price ranges from about Re.1-8 to about Rs.3.

Cloth of thick texture: *Motia* or *Gazi.*—This is a kind of coarse cloth manufactured in Bihar, and is chiefly used by the poorer classes during the cold weather. It is exported in large quantities to the North-Western Provinces and to Nepal. It is warm and durable, and is used for making *dhutis*, jackets, wrappers, quilts, &c., for men, and *saris* or *lungis* and bodices for women. It is also used as a covering at weddings, and as a ceiling cloth made into *shamianas*. *Motias* are generally made in *thans* or pieces varying from 10 yards to 40 yards in length, and about 2½ feet in breadth. The cotton for this kind of cloth is as a rule spun locally, chiefly by women. About 2½ seers of cotton is said to be sufficient for weaving a piece of cloth 20 yards long. The average price for ordinary *motia* is about 2 to 3 annas per yard; formerly, the cloth used to sell at 4 annas per yard. *Khokti.*—This cloth is made from *Khoktibanga* cotton (*Gossypium herbaceum*), which is naturally yellow coloured. The petals of the flowers of this cotton are yellow, and the cotton itself is yellowish. It is reported to be cultivated in Champaran, Muzaffarpur, and Darbhanga, but the last-named district appears to be the chief centre of the manufacture of the cloth. The following account of it is given in the report received from Darbhanga:—"It is woven in the subdivision of Madhubani, and derives its name from the species of cotton of which it is made, and which is naturally of a brown colour. The value of this cloth varies from Rs.5 to Rs.100 for a piece of 40 English yards. Its best quality equals, if not surpasses, the best brown Holland, and can well be adopted as a summer dress. The cloth is of uncommon durability, of beautiful colour, of fine texture, smooth and glossy. It is also stated in the same report that the industry in this cloth is now languishing for want of patronage. *Fota* cloth is only made in certain districts in Bengal, notably in Jalpaiguri, Rangpur, and Purnea. It is a thick, strong, and durable cloth, which is solely used as a garment for women. When manufactured in a *than* or piece, it measures about 25 to 30 cubits, but small pieces varying from 2 to 3 cubits broad and 3 to 5 cubits long are used for wrapping round the bodies of females up to a little above their breast; the peculiar mode of wearing makes such a small length possible as a female garment.

Besides the special kinds of thick cloths described above, cloth of thick texture is made as a village industry in almost all districts, and is generally known as *mota kapar*. The *kareya* coarse cloth, which is used as a waist cloth in Chota Nagpur, deserves a passing notice. It is very strong and durable. Coarse cloth of hill cotton is

woven by the Tipperas in bright stripes; they are called *pachras*; the price varies from Rs.3 to Rs.5 per piece. Shades of coloured coarse cloth are woven in Comilla; these cost from 5 to 8 annas per yard.

Some of the coarse cloths described above are converted into towels, dusters and bed-sheets; they form a speciality of Bihar. Dinapore is famous for its towels, table-cloths and bed-sheets, but these are chiefly manufactured for the use of Europeans. Very good white bed-sheets of a towel pattern are woven by the Tipperas in Hill Tippera. *Sozin* is a kind of bed-sheet manufactured in Bihar. It measures ordinarily about 7 feet in length and 5 feet in breadth, and the price for such a piece is Rs.2.

Daris and *satranjis* are cotton floor-cloths, and are chiefly manufactured in Bihar, being made of thick thread woven close together. They are very durable, and can be washed. *Dari* is the name generally given to smaller carpets, and *satranji* to those of larger dimensions. *Daris* and *satranjis* are striped generally with blue and white, but combinations of other colours are also common. When made of a small size, they serve the purpose of bed-covers. Small pieces are also used as *ashnis* or seats at meal-time and at the time of prayer. Good *satranjis* could once be obtained in Rangpur, but the industry has of recent years received a serious check. Large numbers are woven in Sultanganj *mahalla* of the Patna city, and at Siwan in the Saran district. They are also made at Aurangabad in Gaya, at Arrah, Bhabhua, Sasaram in Shahabad, and in Muzaffarpur. Their prices vary according to their size, weight, and texture. Ordinary carpets are to be purchased by the piece from 8 annas to Rs.30, according to size, which varies a great deal. Carpets of good quality are sold generally according to the weight, varying from 12 annas to Rs.2 per seer. The manufacture of cotton carpets has suffered from the importation of similar fabrics from the North-Western Provinces, and more especially from the competition of jail-made carpets. The sale is mostly confined to the middle and well-to-do classes.

Kalins or *qualins* are made more like woollen carpets than the woven cotton carpets; they are manufactured in Bihar by a special caste known as *Qualinbafs*. At Sasaram, very good *kalins* are manufactured, but the industry is languishing for want of customers. *Kalins* are generally used by well-to-do Hindus and Muhammadans. *Galichas* are piled cotton carpets.

Newar tape is made in Bihar, and is used for cots. There are some thirty or forty families in Patna itself, who carry on this work. Madhubani in Darbhanga is a seat of the industry. *Newar* tape-makers are also to be found in different parts of the Shahabad district. *Newar* tape is made both of English and country thread—generally of the latter. From what I learnt by personal enquiry, the profits from this industry are even less than that obtained from weaving cloth. A *newar* tape-maker cannot earn more than about 2 to 3 annas a day. The price of ordinary *newar* is about Re.1-8 per seer.

Doris or *sutis* are manufactured in different parts of Bihar. They are cotton ropes made by twisting the thread; they are used for tents, *shamianas*, &c. A mixture of cotton and silk cloth is known as *bafta*. It is manufactured still in Bankura, Dacca, and Bhagalpur. *Chikan* work is embroidery work, and not weaving. It is carried on to a large extent in Calcutta and Barasat, and in some of the bigger towns in the *mufassal* by the Muhammadans. The work is much appreciated by Europeans, and is thus largely exported to Europe, America and Australia, the Calcutta dealers having opened out agencies for the sale of their work. A few Hindu women also are very proficient in the art. The pattern is first sketched out on paper and imitated on cloth; sometimes the pattern is stamped upon the cloth.

Besides the above, it may be mentioned that in Chittagong the Maghs wear cottons of all kinds of bright patterns, after the style of the Burmese. The yellow robes of the priests are all spun, dyed, and woven in their monasteries.

COTTON GARMENTS.—The great bulk of the clothing worn by the Hindus of these Provinces consists of loom-made articles untouched by needle and scissors. Owing, however, to Muhammadan and European influence, the fashion has also been introduced of wearing garments which require the services and skill of a tailor. Among the orthodox Hindus there is, however, still a love for simple loom-made cloths, and to many made-up cloths are still an abomination. While the poorer and the more orthodox Hindus still cling to their old-fashioned loose garments—the one from economy and the other from a love for the old style—the upper classes are day by day assimilating the costumes of the Muhammadan and European races.

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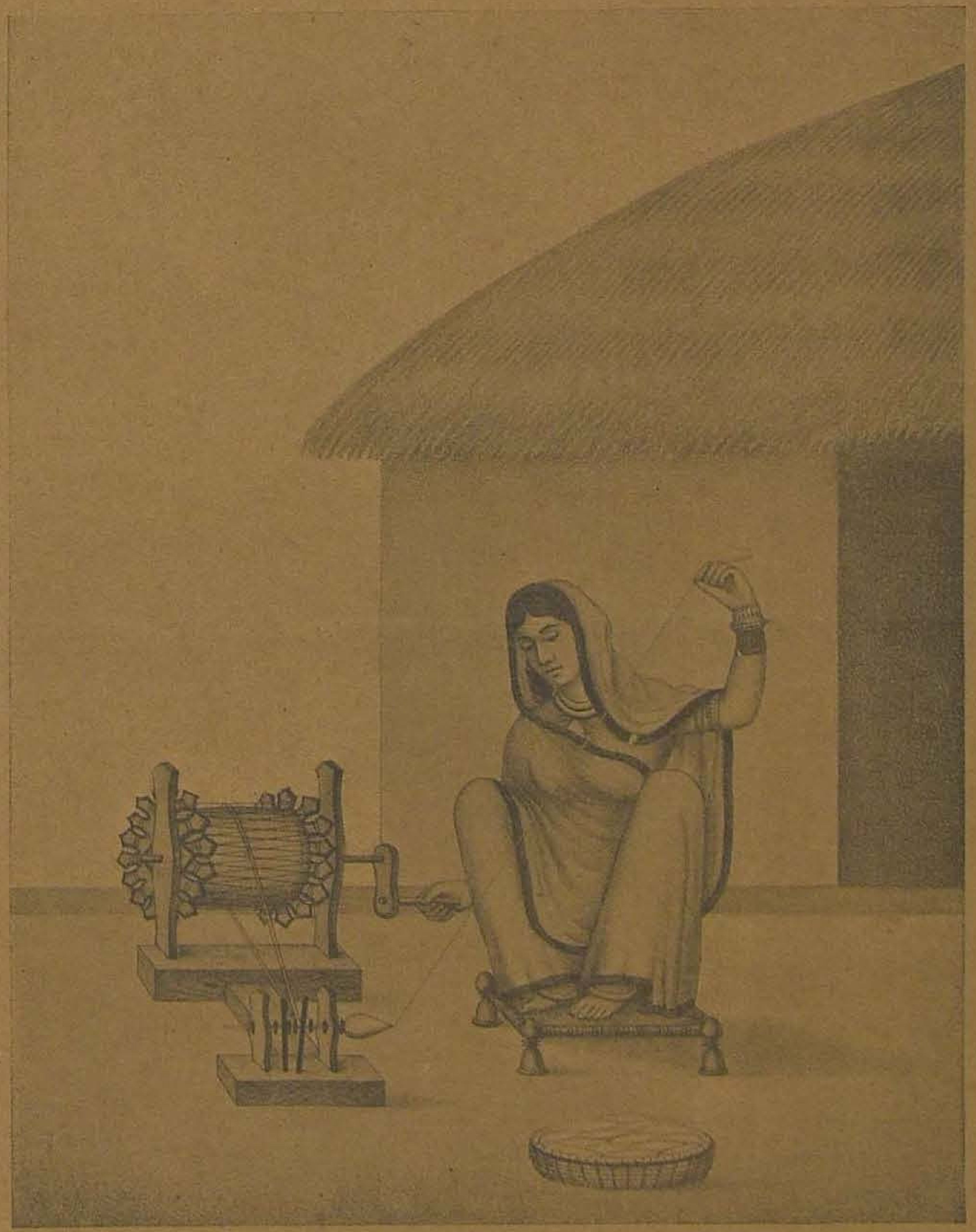

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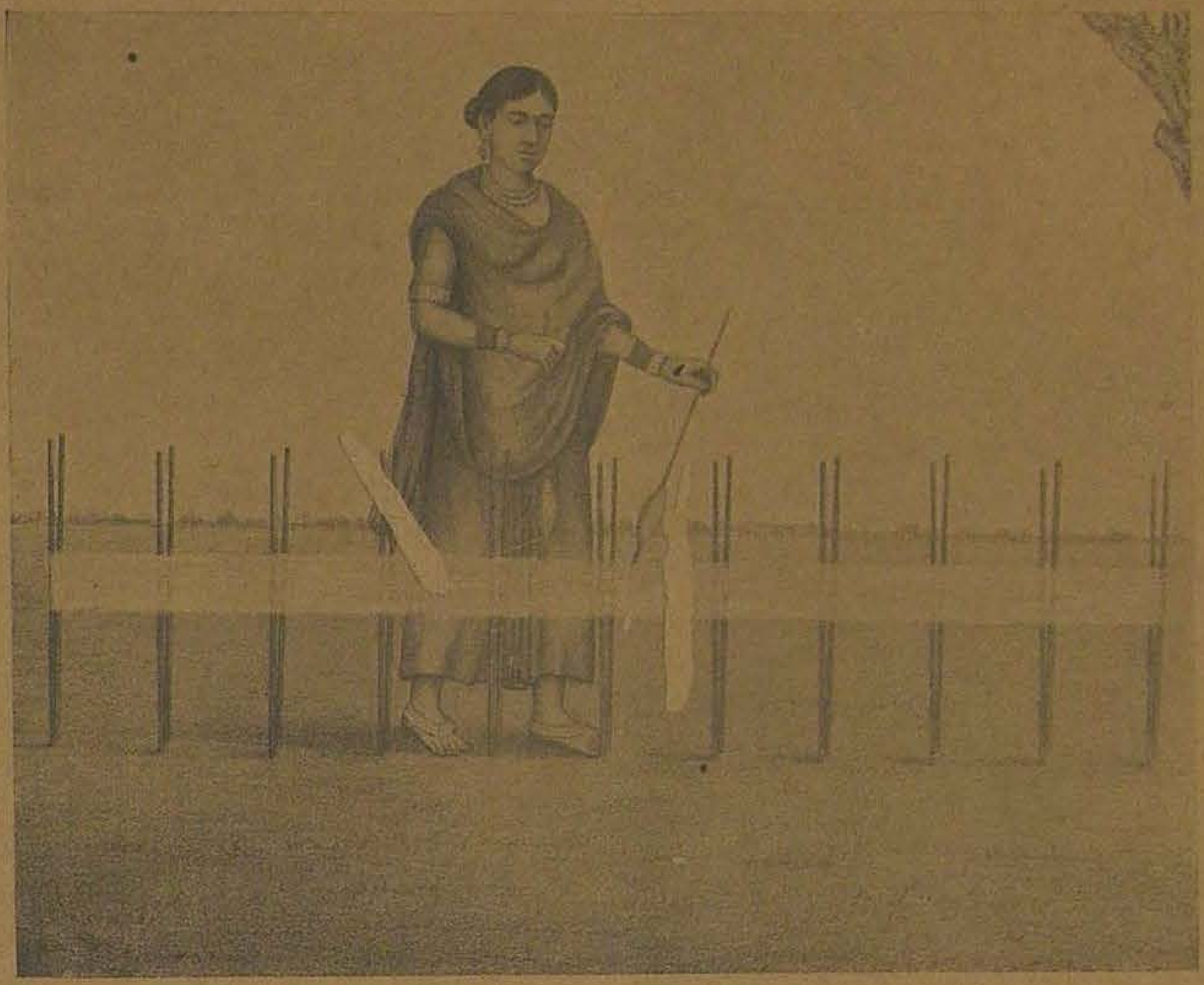

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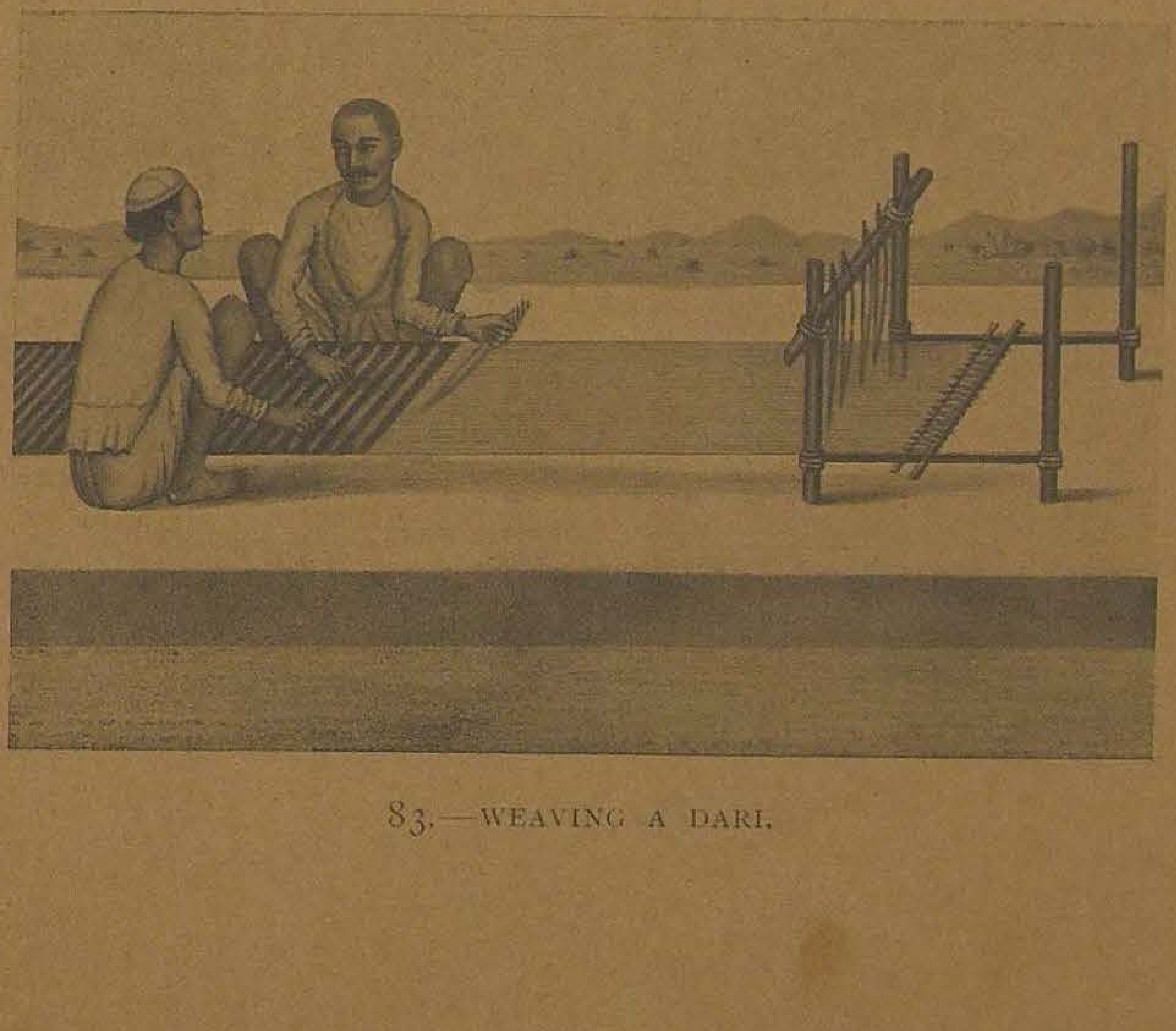

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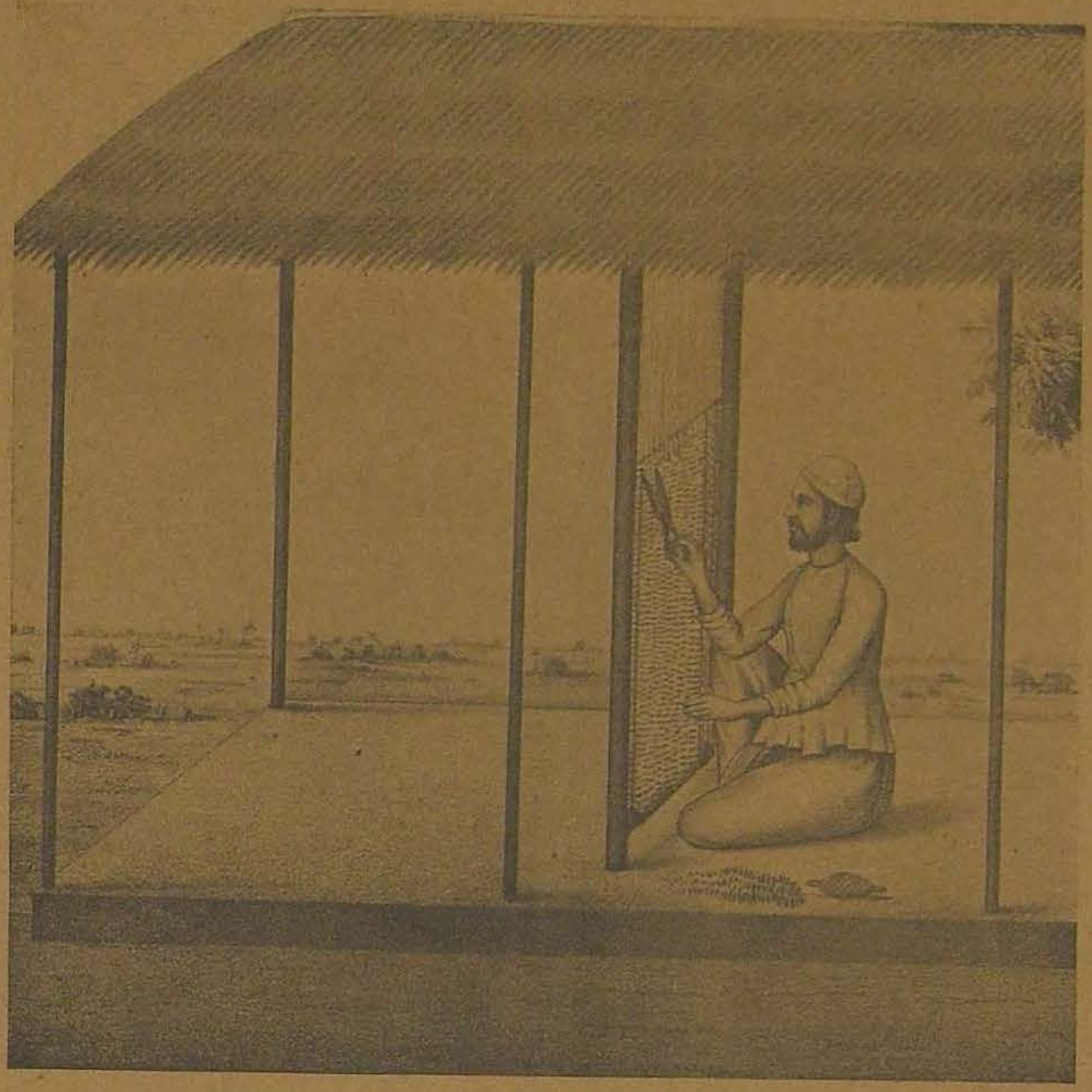

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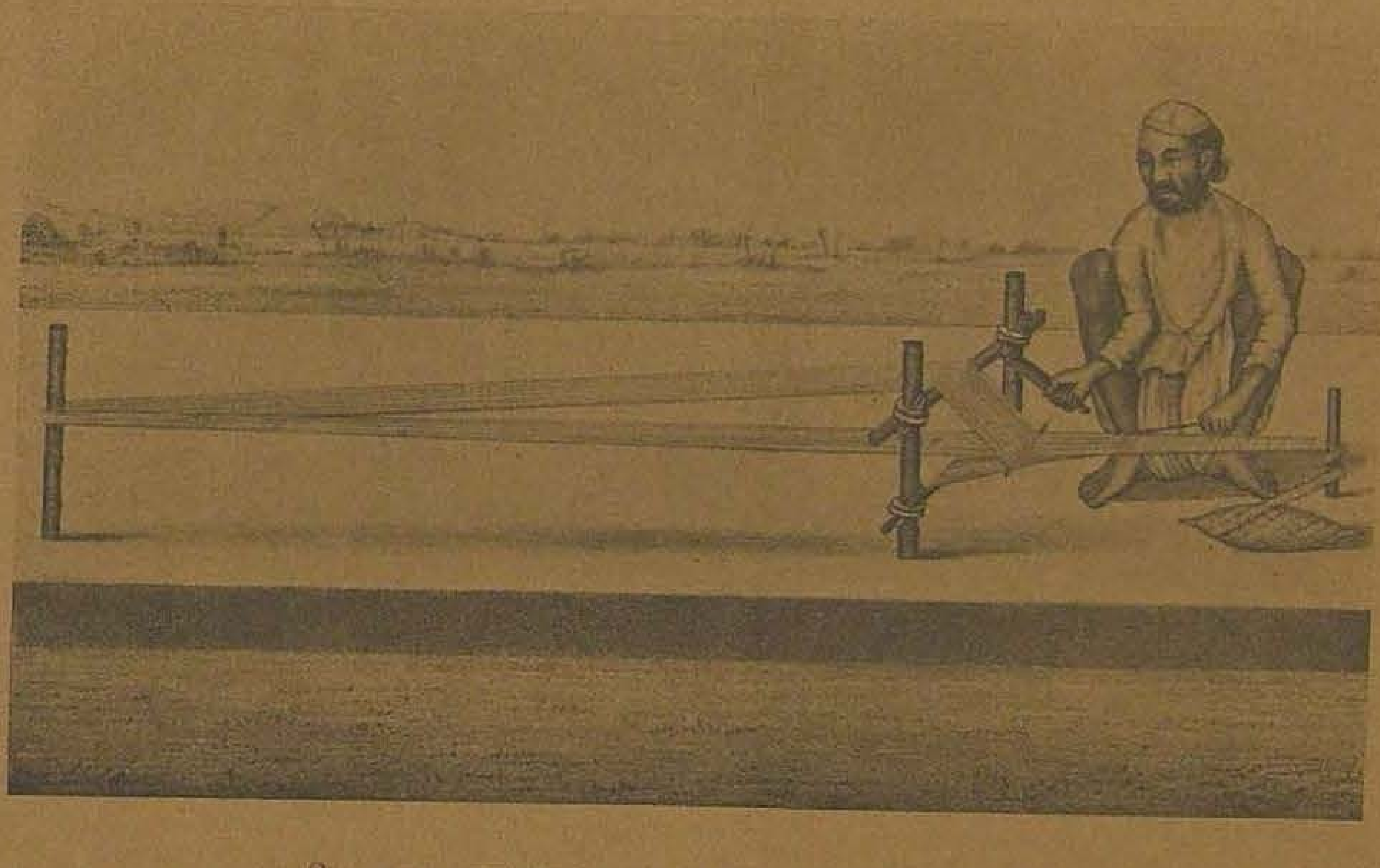

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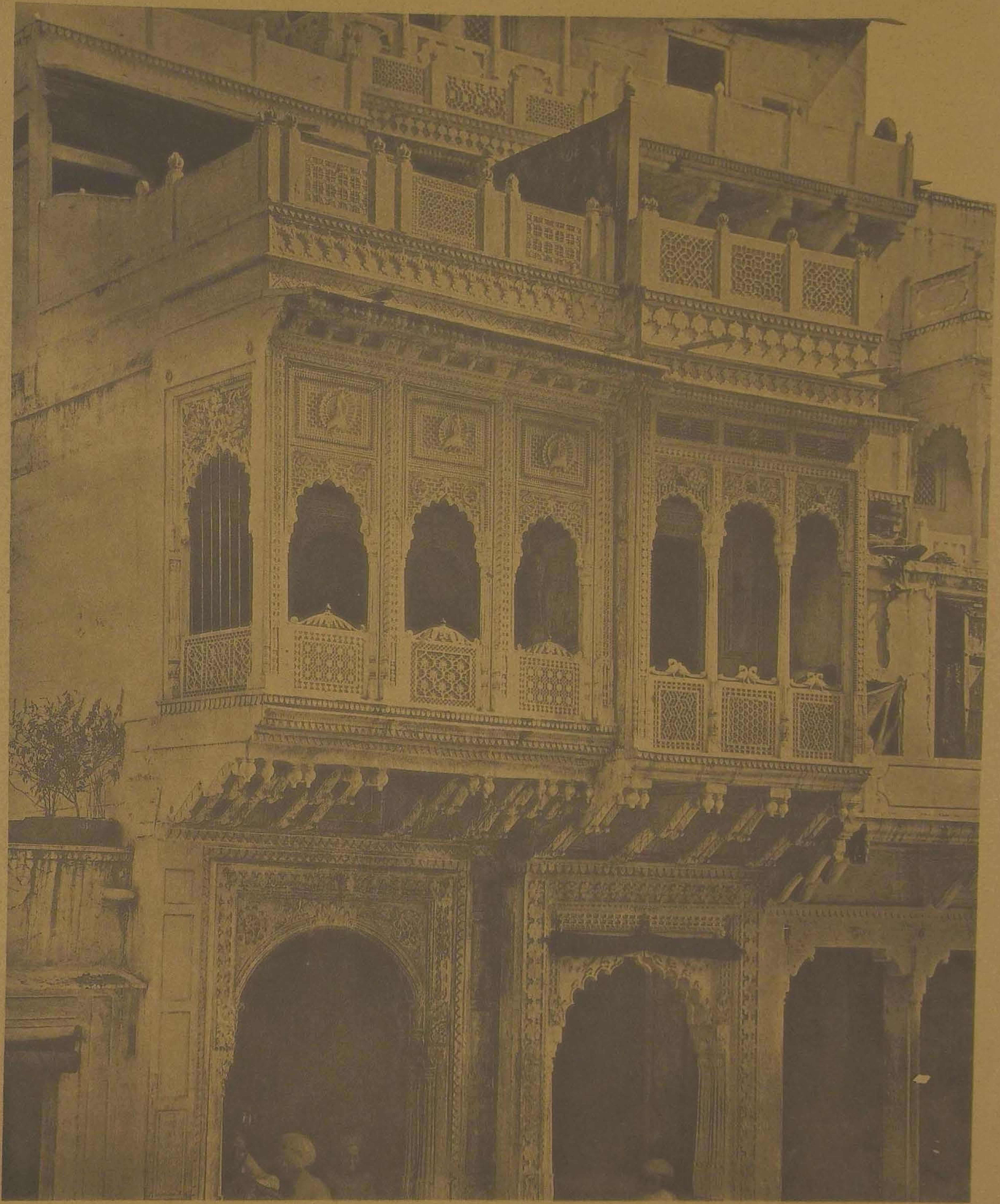

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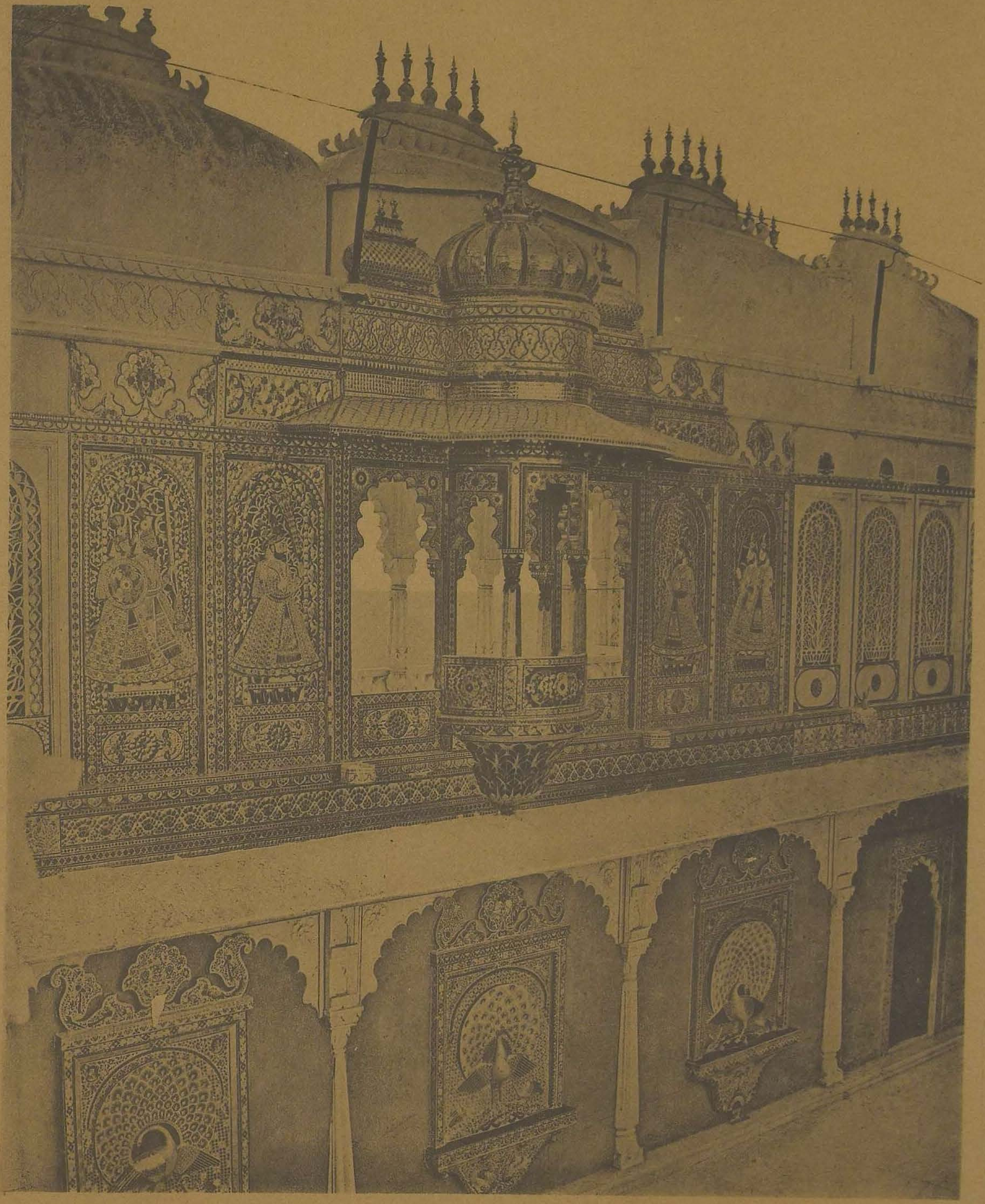

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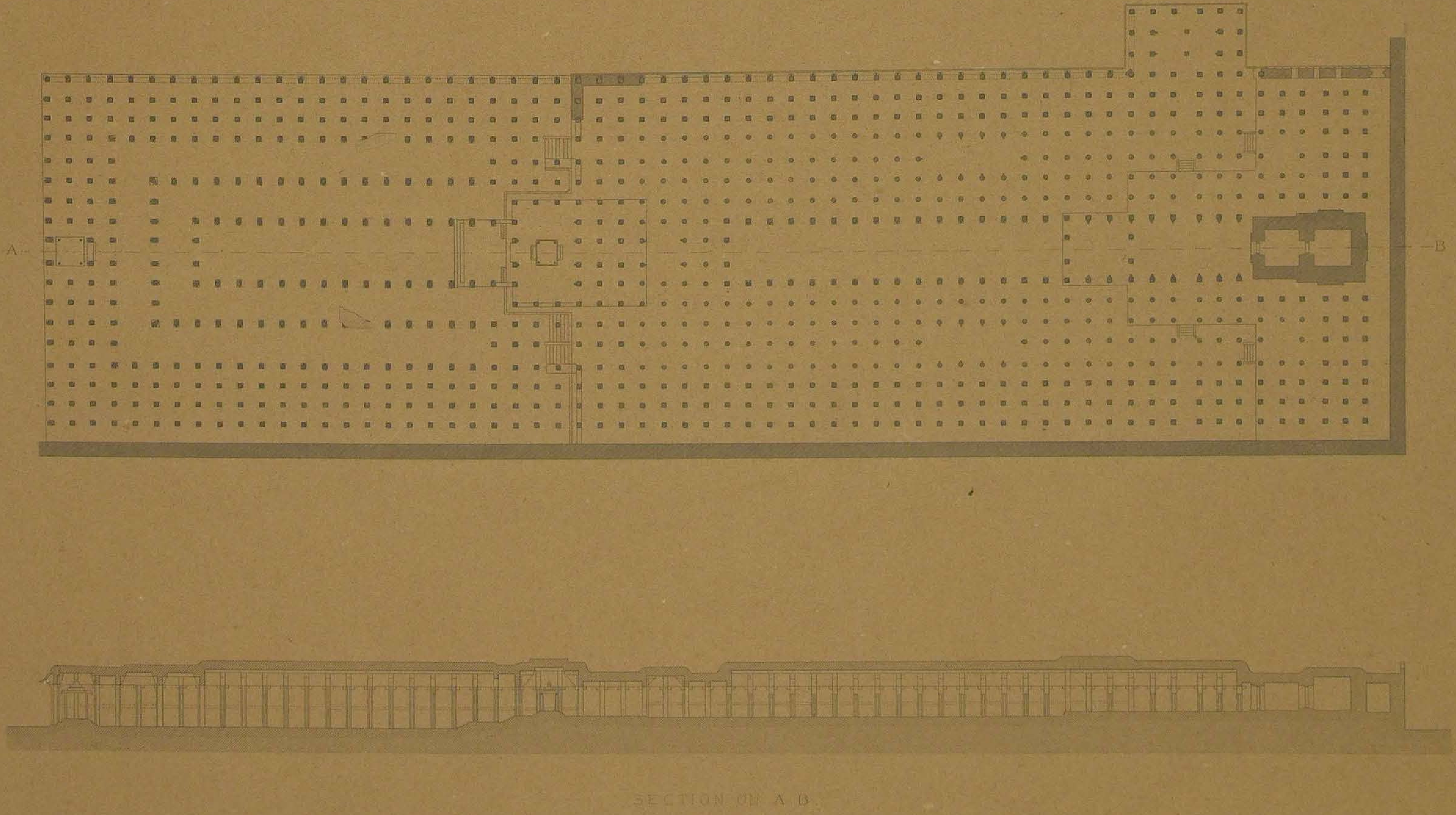

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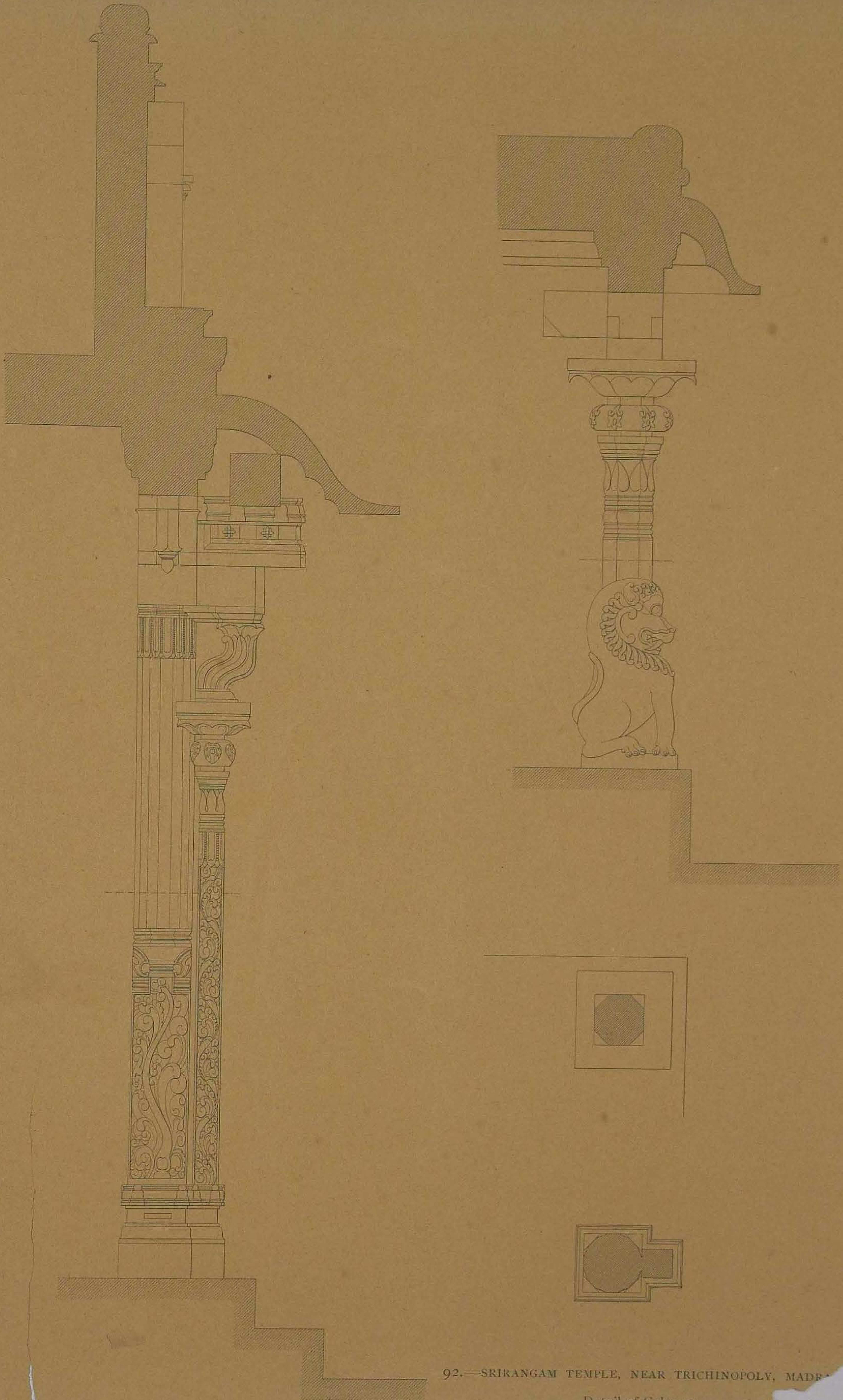
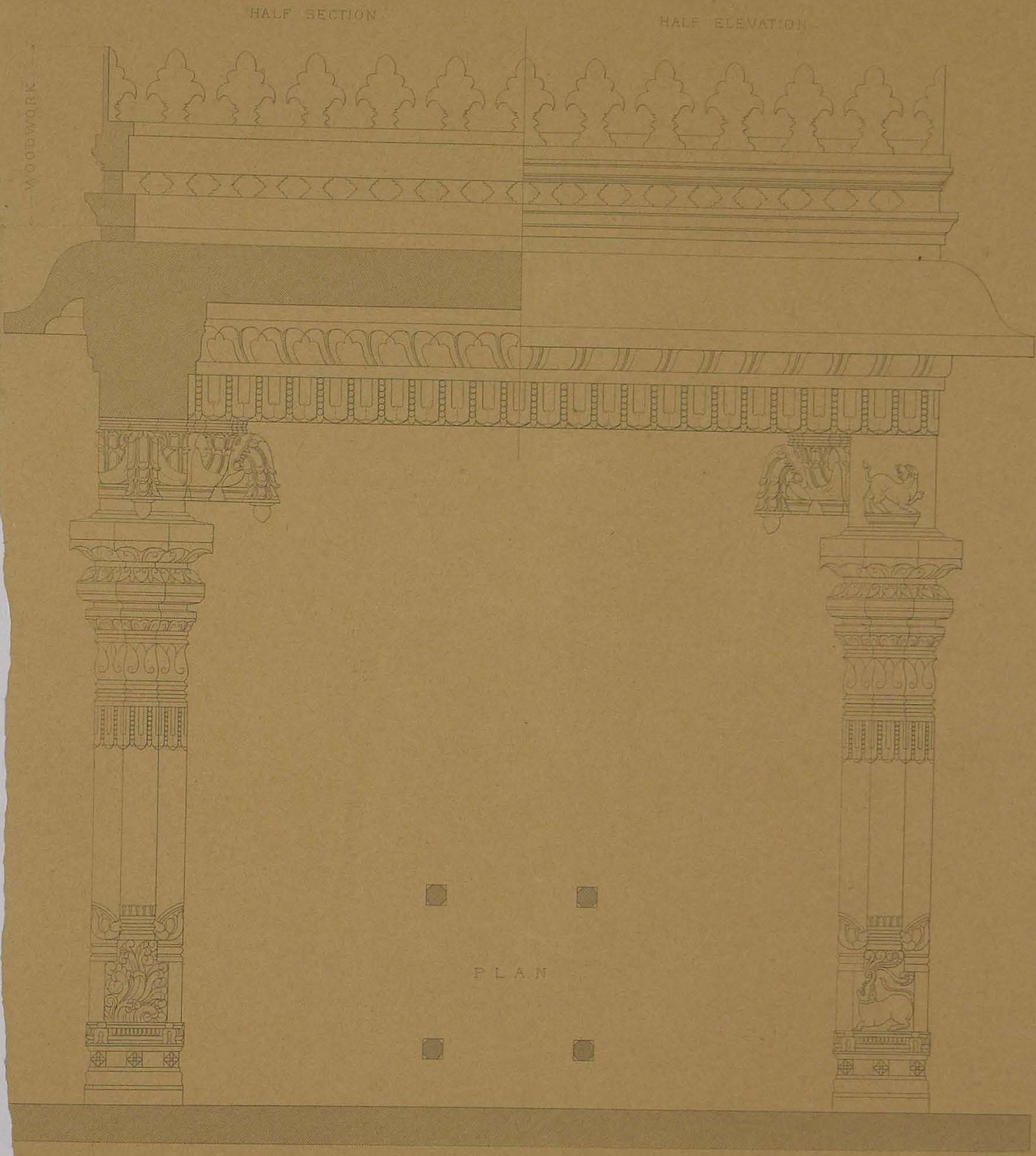


92.—SRIRANGAM TEMPLE, NEAR TRICHINOPOLY, MADR

Detail of Colum



93.—SRIRANGAM TEMPLE, NEAR TRICHINOPOLY, MADRAS.

Mandapam.

94.—SRIRANGAM TEMPLE, NEAR TRICHINOPOLY, MADRAS.

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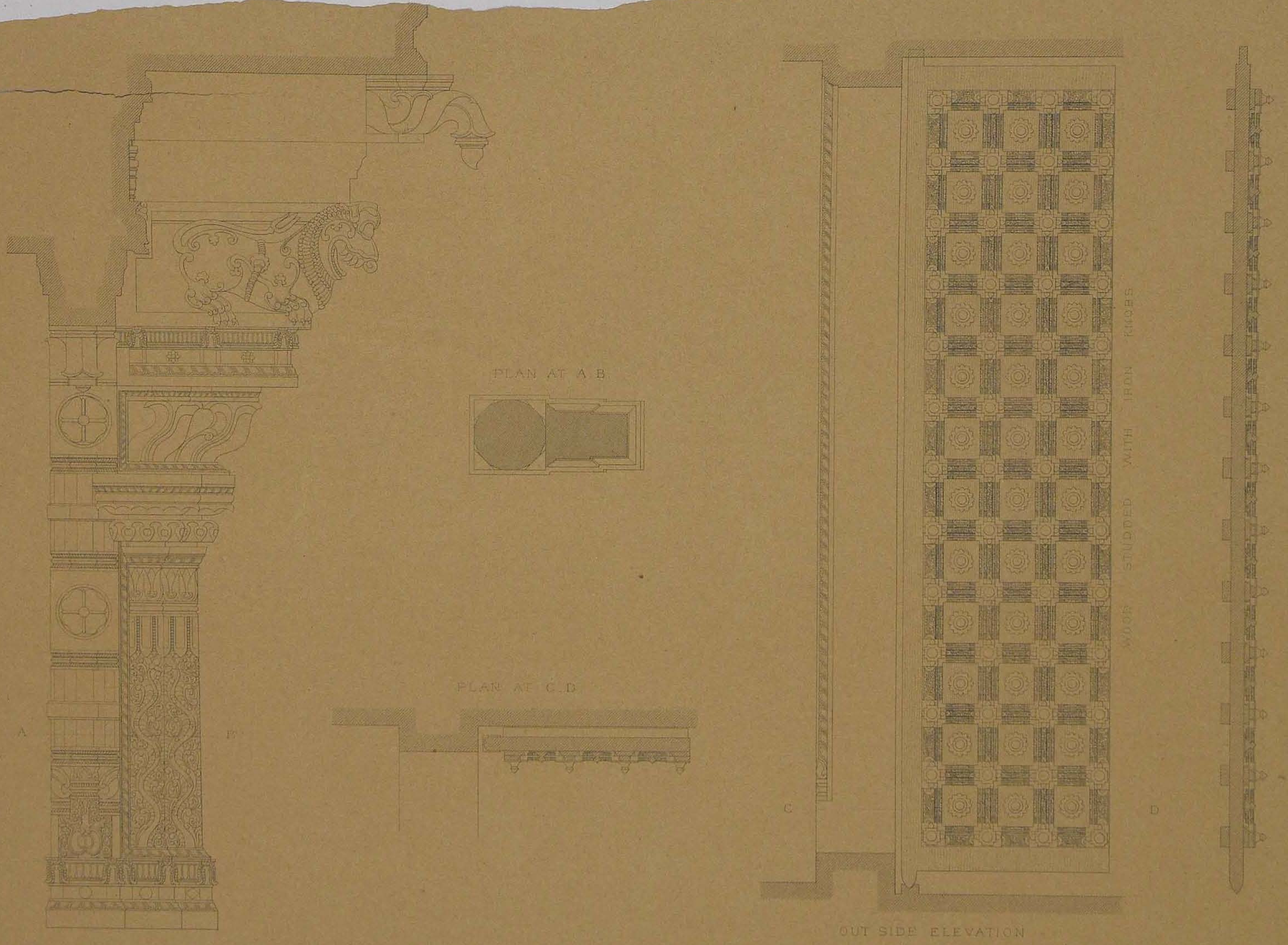

95.—JAMBUISHWAR TEMPLE, NEAR TRICHINOPOLY, MADRAS.

Detail of Column and Door.

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"One of the most sumptuous specimens of colour printing ever produced is the *Journal of Indian Art and Industry* (Messrs. W. Griggs and Sons, Peckham, S.E.). It consists of facsimiles of some of the most valuable volumes in the Royal Library at Windsor Castle. Among them is the Koran. Each is reproduced with its artistic eccentricities, and the whole forms a volume of rare beauty and interest."—*Echo*, London, 4 Sept., 1893.

"The latest issue of the *Journal of Indian Art and Industry* (W. Griggs, Elm House, Hanover Street, Peckham, London) is devoted to Persian and Indian Bookbindings. The explanatory paper is written by Surgeon Lieut.-Colonel Thomas Holbein Hendley, C.I.E., who says the best specimens of book binding that are now made in India come from Ulwar, and are doubtless of Persian origin. There are thirteen page-plates of bindings produced with all the care for which Mr. Griggs has established his reputation. Seven of these are from "The Royal and Historical Bindings from the Royal Library, Windsor Castle"; three are from "Memorials of the Jeypore Exhibition"; and three from "Ulwar and its Art Treasures"—*English Mail.*

"Lovers of artistic bookbinding, and, indeed, art amateurs generally, have just had brought within their reach some superb illustrations of the handiwork of Persian and Indian craftsmen. No. 43 of the remarkably cheap and sumptuously-prin *Journal of Indian Art and Industry* contains no less than 13 large quarto-sized chromo-lithographic reproductions of bind and illuminations of the best Persian and Indian periods, the originals of these superb illustrations being among the most cherisl examples of the Royal Library, Windsor Castle, the Jeypore Museum, and the Ulwar Art Treasures. The taste of the Persian and Indian craftsman in colour and design seems still quite unapproachable; the examples before us seem to point to ages of evolution and progressive culture to account for their consummate beauty and simplicity. Such examples of what the older civilisations have to give us should be in every art school in the kingdom. The work is printed in a luxurious style by Mr. W. Griggs, Elm House, Hanover Street, Peckham, and published under the patronage of the Indian Government. The present part is priced 2/-, an unaccountably low figure for such a repository of Oriental classicism. Had we a Grolier Club in London such work as this would create a passion among book-buyers and reform the present fashion of casing our books."—*Bayswater Chronicle*, 26 Aug., 1893.

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W. GRIGGS & SONS, Ld., Elm House, Hanover Street, Peckham, S.E.